

## ANS president bullish on nuclear energy

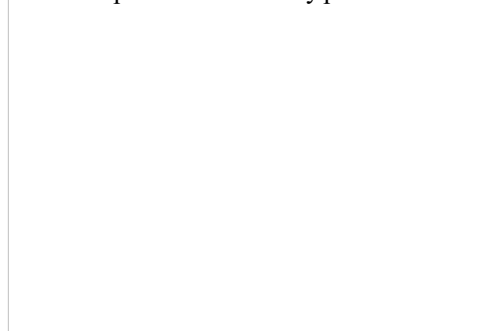
Will America have 78 gigawatts of new emissions-free nuclear electric capacity by 2030? That's what some European experts foresee - and it was one among many fascinating insights INL's Harold McFarlane shared with the Downtown Idaho Falls Rotary Club on Wednesday.

McFarlane, INL deputy associate laboratory director for Nuclear Programs and also the president of the American Nuclear Society, told an audience of 100-plus Rotarians and guests that for nuclear energy, the future looks bright indeed.

"The reawakening of U.S. interest in nuclear energy actually began about the year 2000," McFarlane said. "With the passage of the Energy Policy Act of 2005, we have entered what I call the resurgence of nuclear power. That act spurred new investment throughout the nuclear industry, much of it geared toward construction of Generation 3 or 3-plus reactors."

Those reactors are based on solid improvements to existing reactor technologies, but fall short of the advances that will come over the next decade or two due to international research, development and cooperation, he said.

Photo: Graph of annual electricity production costs



**The cost of producing electricity using nuclear power has declined while the costs of producing electricity using oil and gas have increased.**

McFarlane said three things - energy security, energy cost, and global climate change will continue to make nuclear power very attractive in coming years.

"People now realize that climate change is real," he said. "Both scientists and energy companies are aligning with that position." At the same time, emissions-free nuclear energy is providing the cheapest electricity in America - at an average production cost of 1.7 cents per kilowatt hour. Coal is next at 2.21 cents per kWh, while producing electricity from natural gas or oil is far more expensive, in the range of 7.5 to 8 cents per kWh.

"To put that 1.7 cents in perspective, the wind energy tax credit is 1.8 cents per kilowatt hour" he noted. That is one indicator of how attractive nuclear power has become."

Another indicator is public opinion. In the United States, more than two-thirds of those surveyed favor nuclear energy, including construction of new nuclear plants, he said. And new plants are coming. Potential plans for some 31 new plants have been announced for

construction across the United States by 2020.

Even that number pales beside the prediction of some industry optimists, who expect that by 2030, nuclear power will generate 30 percent of America's electricity - up from the present 20 percent.

McFarlane said the current resurgence will be followed by the phase he called the nuclear renaissance - when the US nuclear supply chain has been rebuilt and America has re-established itself as the world leader in nuclear policy and advanced technology.

[View](#) the complete presentation. ( 4.6MB PowerPoint Slide Show file)

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ANS president Harold McFarlane

**Nuclear generates most of America's emission-free electricity.**